



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/419,164	10/15/1999	TERUHIKO KORI	SONYJP-3.0-0	9858
530	7590	02/09/2005	EXAMINER	
LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			FLETCHER, JAMES A	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/419,164

Applicant(s)

KORI ET AL.

Examiner

James A. Fletcher

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-48 and 50-57 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12, 14-48 and 50-57 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/30/4.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

New Art Unit

1. Please include the new Art Unit 2616 in the caption or heading of any written or facsimile communication submitted after this Office Action because the examiner, who was assigned to Art Unit 2615, will be assigned to new Art Unit 2616. Your cooperation in this matter will assist in the timely processing of the submission and is appreciated by the Office.

Response to Arguments

2. Applicant's arguments with respect to claims 1-12, 14-30, and 31-57 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 8, 15-16, 18-24, 26, 33-34, 36-42, 44, 51-52, and 54-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen (6,272,283).

Regarding claims 1 and 19, Nguyen discloses a signal conversion apparatus and method comprising:

- signal conversion means and method for converting an input signal to a converted signal (Col 2, lines 5-7 "a scan-line converter that converts the

SVGA format displayed on flat-panel display 22 to the national television standards committee [NTSC] format”);

- determination means and method for detecting additional information added to the input signal indicating that copying of the input signal is limited or prohibited (Col 2, lines 59-60 “The player application includes a means for generating a request for copy protection”);
- prohibiting means for prohibiting the converted signal from being copied when the additional information is present on the input signal (Col 5, lines 27-30 “The display driver either completely disables the output signal to the TV-port when a copy-protected DVD disk 25 is played, or a MacroVision-compliant TV encoder in laptop PC 20 scrambles the TV-OUT output”); and
- notification means for notifying a user of the prohibiting for the converted signal (Col 11, lines 27-30 “The DVD navigator can generate its own messages...to suggest that the user disable the TV monitor to play the copy-protected DVD title on legacy equipment”).

Regarding claim 37, Nguyen discloses a signal conversion apparatus comprising:

- a signal converter adapted to convert an input signal into a converted signal (Col 2, lines 5-7 “a scan-line converter that converts the SVGA format displayed on flat-panel display 22 to the national television standards committee [NTSC] format”);

- a signal detector adapted to examine the input signal, detect additional information added to the input signal and determine whether the additional information indicates that copying of the input signal is prohibited or limited ((Col 2, lines 59-60 "The player application includes a means for generating a request for copy protection");
- a switch for prohibiting the copying of the converted signal when the additional information indicates that copying of the input signal is prohibited or limited (Col 5, lines 27-30 "The display driver either completely disables the output signal to the TV-port when a copy-protected DVD disk 25 is played, or a MacroVision-compliant TV encoder in laptop PC 20 scrambles the TV-OUT output"); and
- a visual indicator adapted to notify a user of the prohibiting for the converted signal (Col 11, lines 27-30 "The DVD navigator can generate its own messages...to suggest that the user disable the TV monitor to play the copy-protected DVD title on legacy equipment").

Regarding claims 2, 3, 20, 21, 38, and 39, Nguyen discloses a signal conversion apparatus and method wherein the input signal is a video signal (Col 1, line 61 "copyrighted video from DVD disk") and the signal conversion means is adapted to perform a signal conversion process on the video signal selected from the group consisting of converting progressive scanning into interlaced scanning and converting interlaced scanning into progressive scanning (Col 2, lines 5-7 "a scan-line converter

that converts the SVGA format displayed on flat-panel display 22 to the national television standards committee [NTSC] format”).

Regarding claims 4, 22 and 40, Nguyen discloses a signal conversion apparatus and method wherein the input signal is a video signal (Col 1, line 61 “copyrighted video from DVD disk”) and the signal conversion means is adapted to convert a signal format of the video signal (Col 2, lines 5-7 “a scan-line converter that converts the SVGA format displayed on flat-panel display 22 to the national television standards committee [NTSC] format”).

Regarding claims 5, 23, and 41, Nguyen discloses a signal conversion apparatus and method where the signal format conversion is selected from the group consisting of converting a high-definition television signal into a standard television signal and converting a standard television signal into a high definition television signal (Col 2, lines 5-7 “a scan-line converter that converts the SVGA format displayed on flat-panel display 22 to the national television standards committee [NTSC] format”).

Regarding claims 6, 24, and 42, Nguyen discloses a signal conversion apparatus and method wherein the signal format conversion is selected from the group consisting of converting a video signal of image data in a format for computer processing into a high definition television signal, converting a video signal of image data in a format for computer processing into a standard television signal, converting a high-definition television signal into a video signal of image data in a format for computer processing, and converting a standard television signal into a video signal of image data in a format for computer processing (Col 2, lines 5-7 “a scan-line converter

that converts the SVGA format displayed on flat-panel display 22 to the national television standards committee [NTSC] format”).

Regarding claims 8, 26, and 44, Nguyen discloses a signal conversion apparatus and method for enforcing copy protection on converted signals wherein the signal converter is adapted to convert a data compression method of the video signal (Col 5, lines 62-64 “The video information from DVD disk drive 48 is de-compressed, using a hardware or software-based de-compression algorithm such as MPEG”).

Regarding claims 15, 33, and 51, Nguyen discloses a signal conversion apparatus and method for enforcing copy protection on converted signals, wherein the input signal is a digital signal (Col 1, line 61 “copyrighted video from DVD disk”).

Regarding claims 16, 34, and 52, Nguyen discloses a signal conversion apparatus and method wherein the additional information comprises a plurality of different types of information (Col 3, lines 13-14 “In further aspects of the invention a plurality of player applications play a plurality of copy-protected videos”), and when the determination means determines that any one of the plurality of different types of information indicates that copying of the input signal is prohibited or limited, the prohibiting means disables the converted signal (Col 5, lines 27-30 “The display driver either completely disables the output signal to the TV-port when a copy-protected DVD disk 25 is played, or a MacroVision-compliant TV encoder in laptop PC 20 scrambles the TV-OUT output”).

Regarding claims 18, 36, and 54, Nguyen discloses a signal conversion apparatus and method for enforcing copy protection on converted signals, wherein the

input signal is a digital signal that is encrypted (Col 3, lines 1-3 "A transmitting means in the display driver transmits an encryption key from the player application to the TV encoder").

Regarding claims 55-57, Nguyen discloses a signal conversion apparatus and method wherein the prohibiting means prohibits the converted signal from being transmitted as an output signal from the signal conversion apparatus (Col 5, lines 27-30 "The display driver either completely disables the output signal to the TV-port when a copy-protected DVD disk 25 is played, or a MacroVision-compliant TV encoder in laptop PC 20 scrambles the TV-OUT output").

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7, 9-13, 25, 27-34, 43, and 45-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen as applied to claims above, and further in view of Kori et al (5,778,064).

Regarding claims 7, 25, and 43, Nguyen is silent on conversion of a video signal from analog into digital, although the environment of a personal computer is well-known to provide such conversions.

Kori et al teach a signal conversion apparatus and method wherein the video signal is an analog video signal and the signal conversion means is adapted to convert

Art Unit: 2616

the analog video signal into a digital video signal (Col 8, lines 10-123 "the video HD signal...A/D converter 54 which converts the analog HD video signal to a digital HD video signal").

As taught by Kori et al, conversion of a video signal from digital to analog is well-known, widely used, and commercially available, and provides a user with the ability to carry out complex algorithms, storage on digital media, and other useful functions.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nguyen to provide for an analog input and analog to digital conversion.

Regarding claims 9, 27, and 45, Nguyen suggests a signal conversion apparatus and method wherein the input signal is an audio signal (Col 2, line 16 "Illegal Tape Made by VCR Using Laptop PC's TV-OUT" clearly suggesting that both audio and video signals are recorded, and Col 1, lines 14-15 "Full multimedia capabilities such as high-fidelity audio and full-motion video"), but do not specifically disclose protecting the audio signal.

Kori et al disclose a signal conversion apparatus and method wherein the input signal is an audio signal (Col 5, lines 9-10 "copy protection information for the audio signal").

As suggested by Nguyen and taught by Kori et al, audio signals are known to accompany video signals in audio/video recordings, and are also well known to be protected from unauthorized copying.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nguyen in order to protect audio signals from unauthorized copying.

Regarding claims 12, 30, and 48, Nguyen is silent on conversion of an audio signal from analog into digital, although the environment of a personal computer is well-known to provide such conversions.

Kori et al teach a signal conversion apparatus and method wherein the audio signal is an analog audio signal and the signal conversion means is adapted to convert the analog audio signal into a digital audio signal (Col 8, lines 1-2 "A/D converter 52 which converts the analog audio HD signal to digital audio HD signal").

As taught by Kori et al, conversion of an audio signal from digital to analog is well-known, widely used, and commercially available, and provides a user with the ability to carry out complex algorithms, storage on digital media, and other useful functions.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nguyen to provide for an analog input and analog to digital conversion.

Regarding claims 10, 28, and 46, the combination is silent on converting the sampling frequency of an audio signal.

The examiner takes official notice that the sampling frequency of an input signal is notoriously well known to be a design choice, and may be modified to suit the needs of the product or its application.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection when converting the sampling frequency of the incoming audio signal.

Regarding claims 11, 29, and 47, the combination is silent on converting a compression method.

The examiner takes official notice that data compression conversions are notoriously well-known and commercially available techniques for modifying compressed data to solve a variety of problems, including bandwidth and storage limitations.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection when converting from one method of compression to another.

7. Claims 14, 17, 32, 35, 50, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen as applied to claims above, and further in view of Ryan et al (6,374,036).

Regarding claims 14, 17, 32, 35, 50, and 53, Nguyen discloses a signal conversion apparatus and method wherein additional information is provided to indicate that copying of the input signal is prohibited or limited (Col 2, lines 59-60 "The player application includes a means for generating a request for copy protection"), but does not specifically disclose the use of watermarks as a carrier of such additional information.

Ryan et al teach the use of watermarks to determine copy prohibition or copy limitation (Col 1, lines 15-18 "The present invention relates to copy protection of video

Art Unit: 2616

material by embedding robust identification codes [e.g., watermarks or fingerprints] in video signals, and use of these identification codes for a 'copy-once' method and apparatus").

As taught by Ryan, watermarks are a well-known and available technique of providing copy protection to image data signals. In a system where the data conversion detected copy protection in the form of a watermark, common sense would dictate that the copy protection data would be detected and heeded by the storage and/or display equipment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection dictated by a watermark.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2616

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (703) 305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached at (703) 305-4380.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231


or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JAF
January 27, 2005


ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600